—PRODUCT INFORMATION—

6KR8-A

Triode-Pentode

The 6KR8-A is a miniature triode-pentode containing a medium-mu triode and a sharp-cutoff pentode. The pentode is intended for use as a video amplifier and the triode for general-purpose use.

The 6KR8-A is unilaterally interchangeable with the 6KR8.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC*	6.3±0.6	Volts
Heater Current‡	0.75	Amperes

Direct Interelectrode Capacitances§

Pentode Section

Grid-Number 1 to Plate: (Pg1 to Pp)	0.075	pf
Input: Pg1 to (h + Pk + Pg2 + Pg3 + i.s.)	13	pf
Output: Pp to (h + Pk + Pg2 + Pg3 + i.s.)	4.4	pf

Triode Section

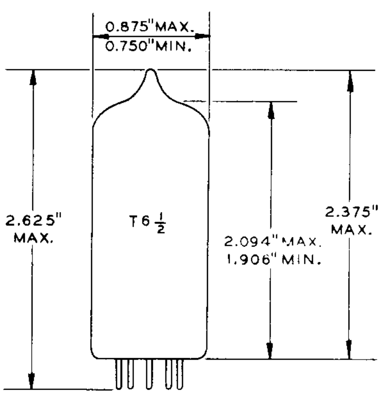
Grid to Plate: (Tg to Tp)	2.6	pf
Input: Tg to (h + Tk + Pk + Pg3 + i.s.)	4.2	pf
Output: Tp to (h + Tk + Pk + Pg3 + i.s.)	3.0	pf

MECHANICAL

Operating Position - Any
Envelope - T-6 1/2, Glass
Base - E9-1, Small Button 9-Pin
Outline Drawing - EIA 6-3

Maximum Diameter	0.875	Inches
Minimum Diameter	0.750	Inches
Maximum Over-all Length	2.625	Inches
Maximum Seated Height	2.375	Inches

PHYSICAL DIMENSIONS

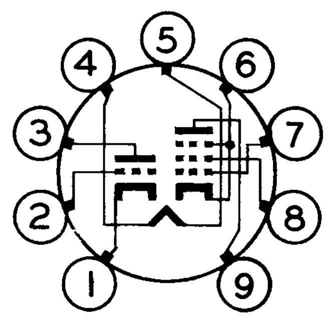


EIA 6-3

TERMINAL CONNECTIONS

Pin 1 - Triode Cathode
Pin 2 - Triode Grid
Pin 3 - Triode Plate
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Pentode Cathode, Grid Number 3, and Internal Shield
Pin 7 - Pentode Grid Number 1
Pin 8 - Pentode Grid Number 2 (Screen)
Pin 9 - Pentode Plate

BASING DIAGRAM



EIA 9DX

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES

	Pentode Section	Triode Section	
Plate Voltage	330	330	Volts
Screen Supply Voltage	330	---	Volts
Screen Voltage - See Screen Rating Chart			
Positive DC Grid-Number 1 Voltage	0	0	Volts
Plate Dissipation	5.0	2.0	Watts
Screen Dissipation	1.5	---	Watts
Heater-Cathode Voltage			
Heater Positive with Respect to Cathode			
DC Component	100	100	Volts
Total DC and Peak	200	200	Volts
Heater Negative with Respect to Cathode			
Total DC and Peak	200	200	Volts
Grid-Number 1 Circuit Resistance			
With Fixed Bias	0.01	0.5	Megohms
With Cathode Bias	0.01	1.0	Megohms

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey electron tube of a specified type as defined by its published data and should not be exceeded under the worst probable conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making allowance for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of all other electron devices in the equipment.

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS

	Pentode Section		Triode Section	
Plate Voltage	35	200	125	Volts
Screen Voltage	100	100	---	Volts
Grid-Number 1 Voltage	0	---	---	Volts
Cathode-Bias Resistor	---	82	68	Ohms
Amplification Factor	---	---	46	
Plate Resistance, approximate	---	60000	4400	Ohms
Transconductance	---	20000	10400	Micromhos
Plate Current	54	19.5	15	Milliamperes
Screen Current	13.5	3.0	---	Milliamperes
Grid-Number 1 Voltage, approximate				
Ib = 10 Microamperes	---	---	-8	Volts
Grid-Number 1 Voltage, approximate				
Ib = 100 Microamperes	---	-6.3	---	Volts

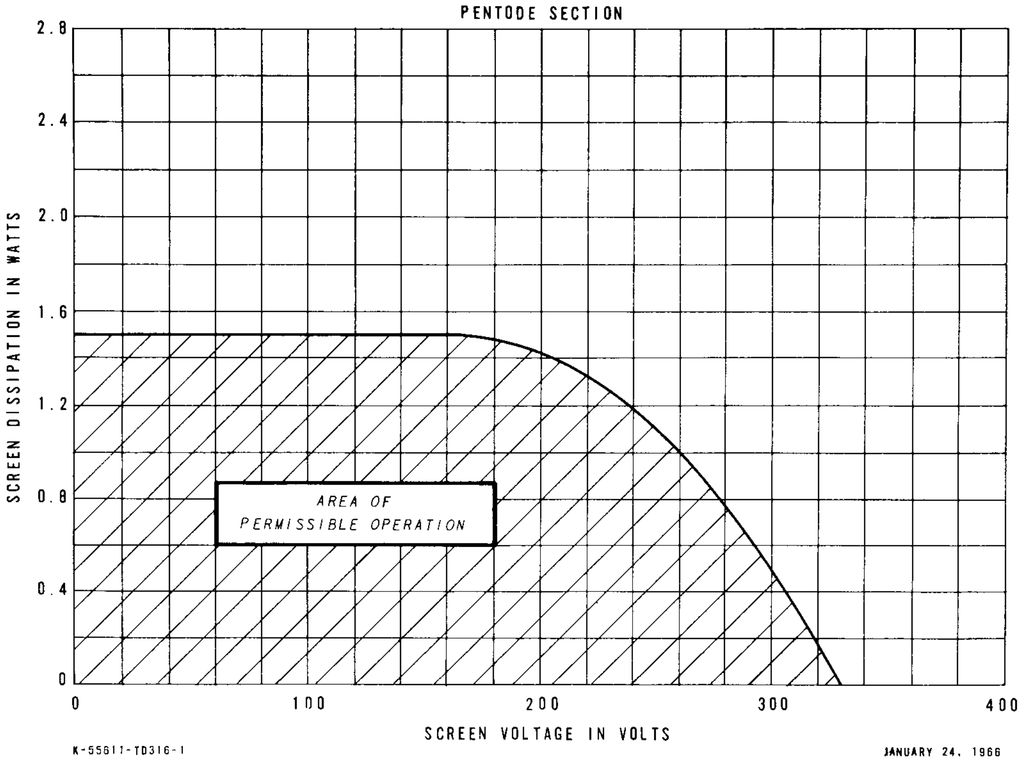
NOTES

* The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.

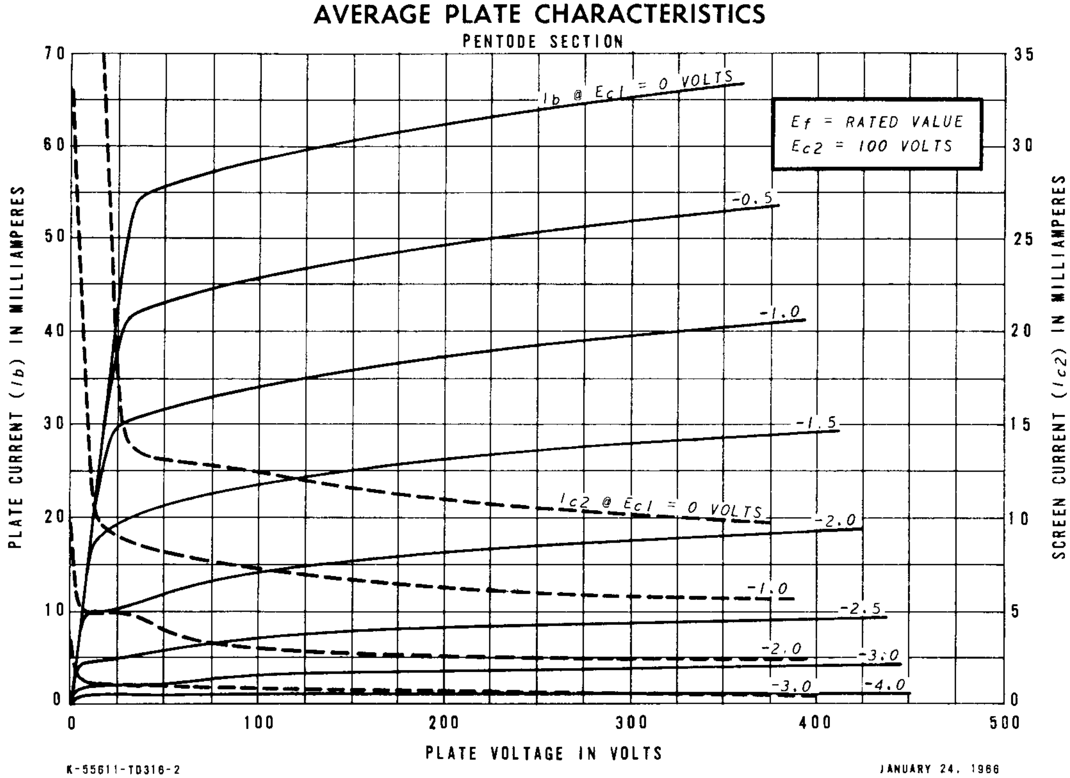
‡ Heater current of a bogey tube at Ef = 6.3 volts.

§ Without external shield.

SCREEN RATING CHART

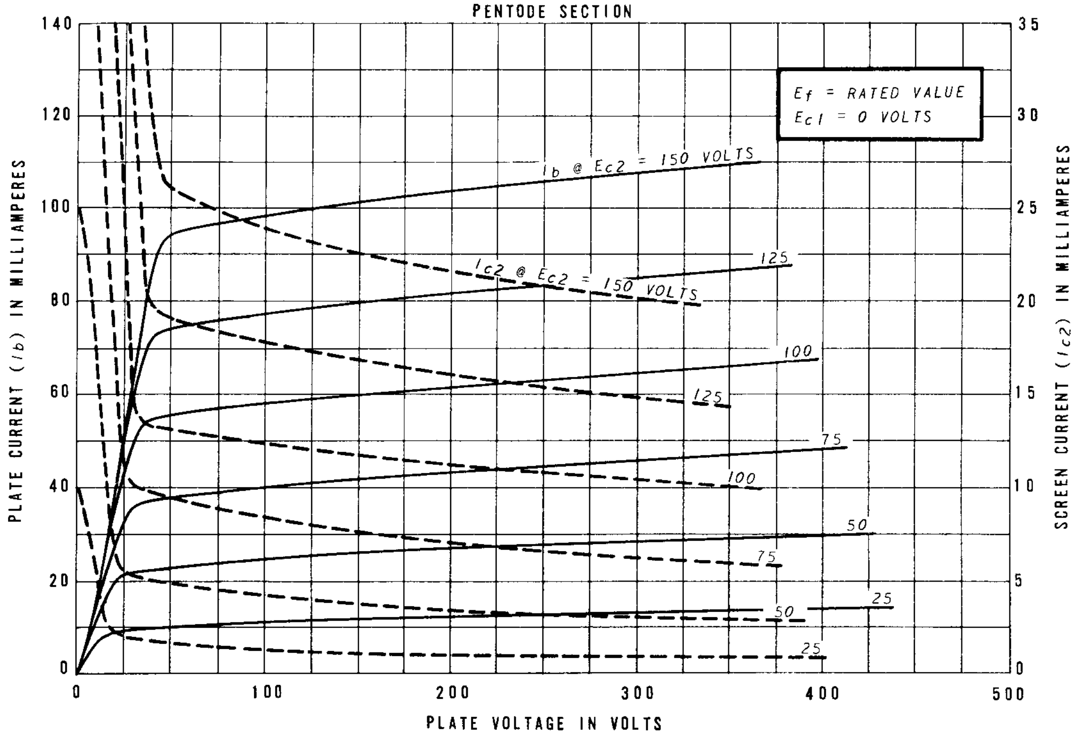


AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS

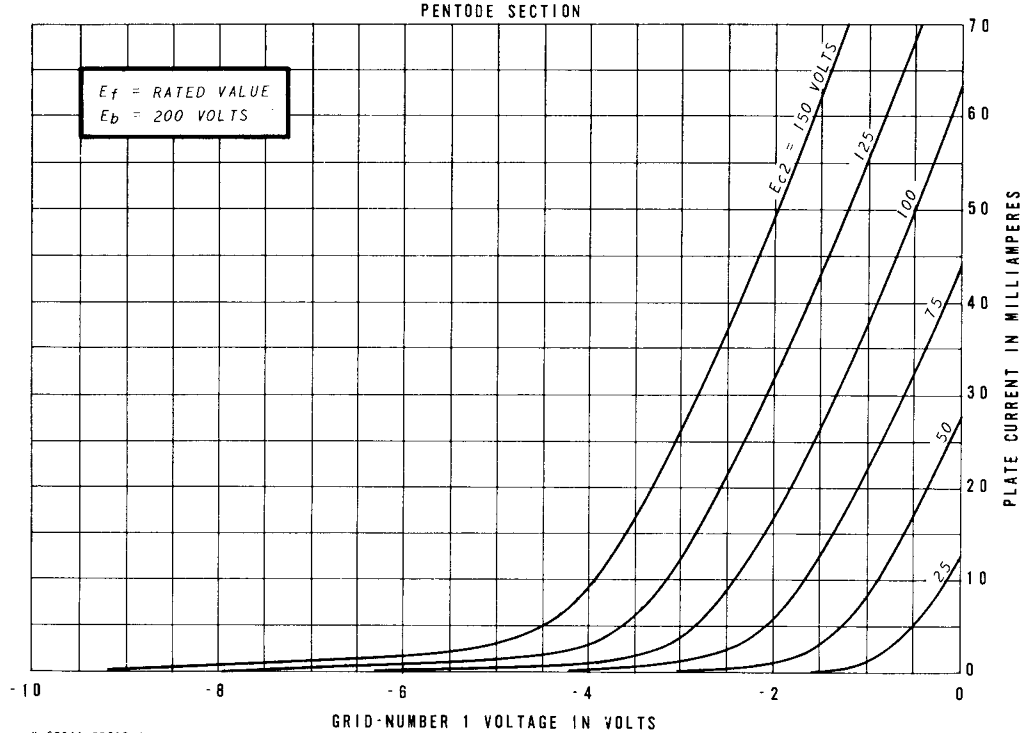
PENTODE SECTION



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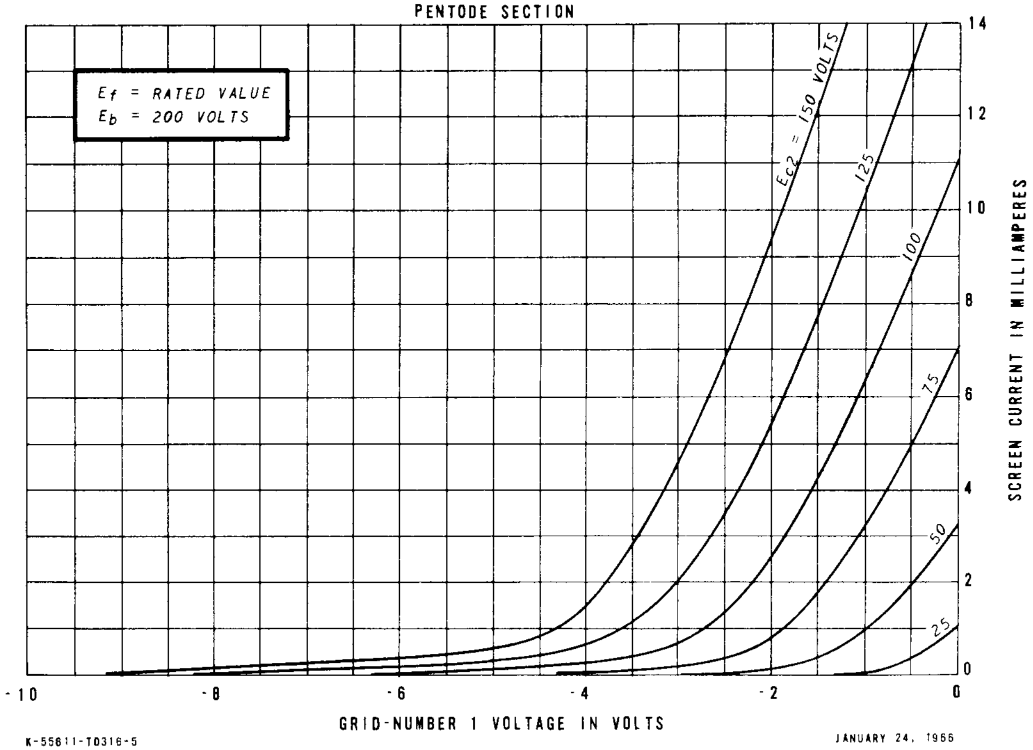
AVERAGE TRANSFER CHARACTERISTICS

PENTODE SECTION

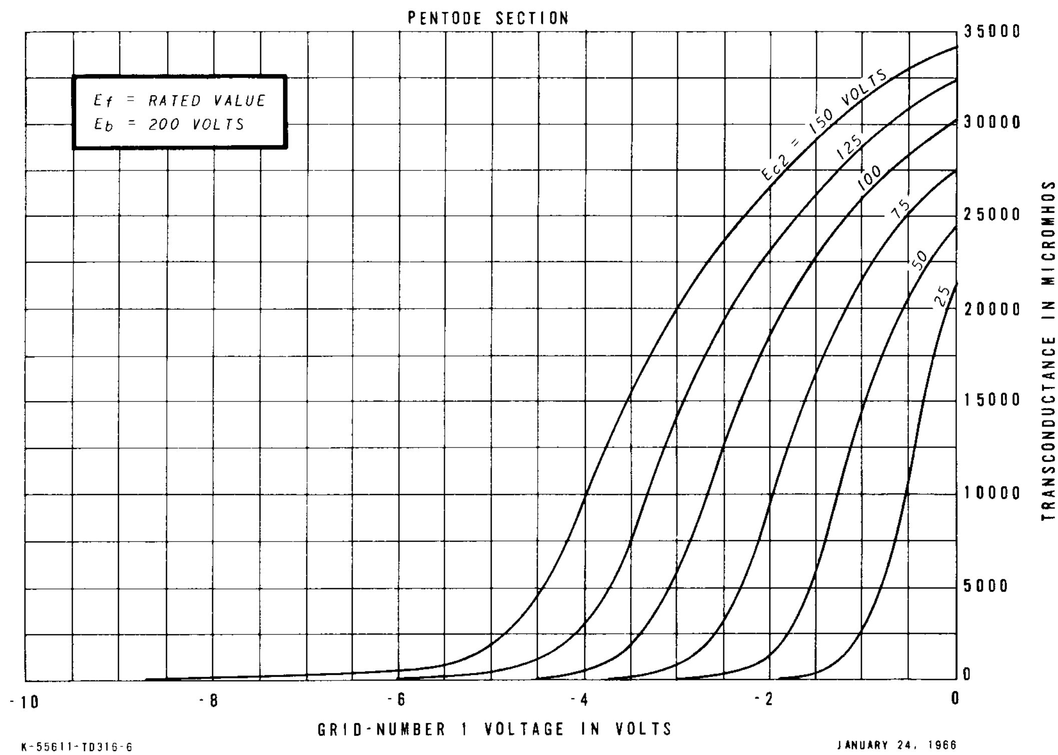


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AVERAGE TRANSFER CHARACTERISTICS

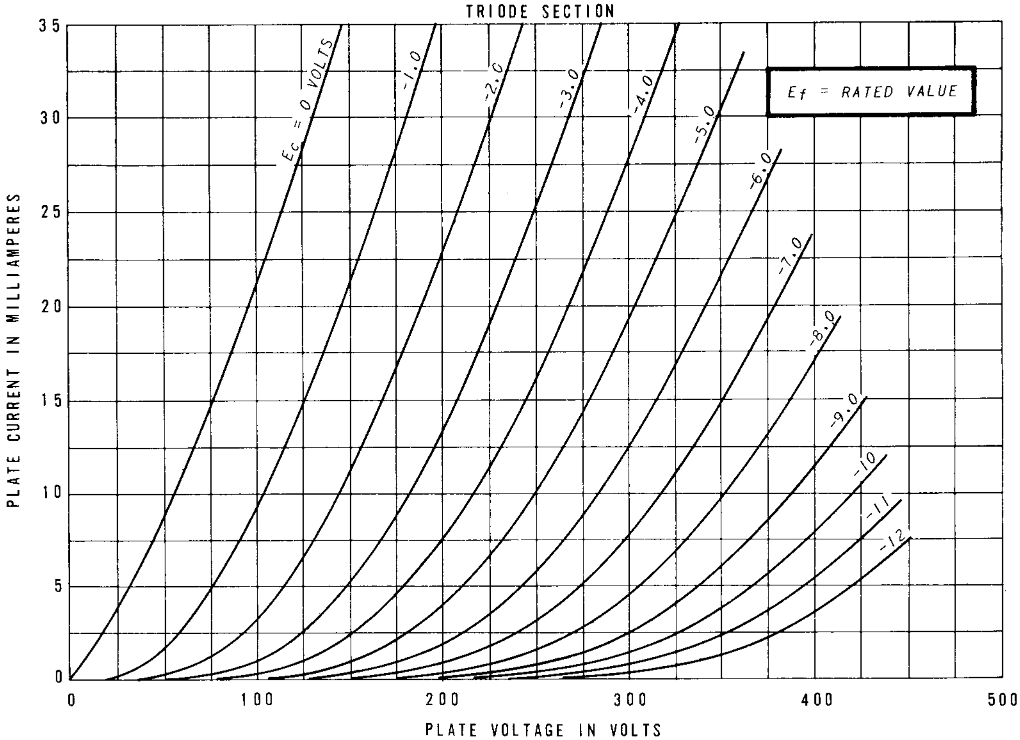


AVERAGE TRANSFER CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS

TRIODE SECTION

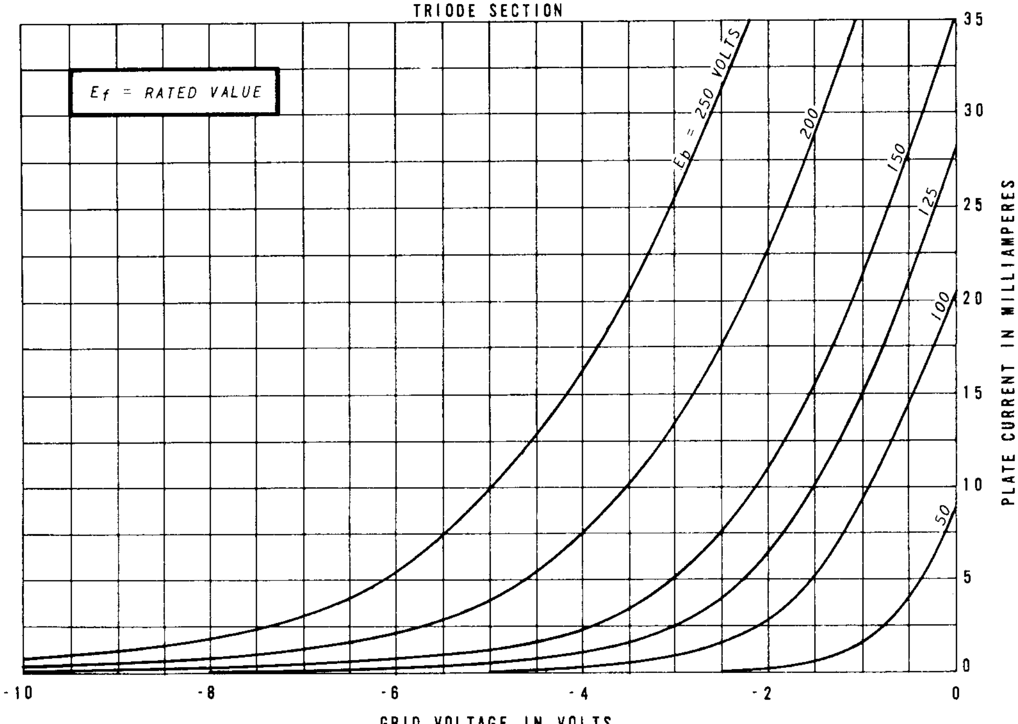


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AVERAGE TRANSFER CHARACTERISTICS

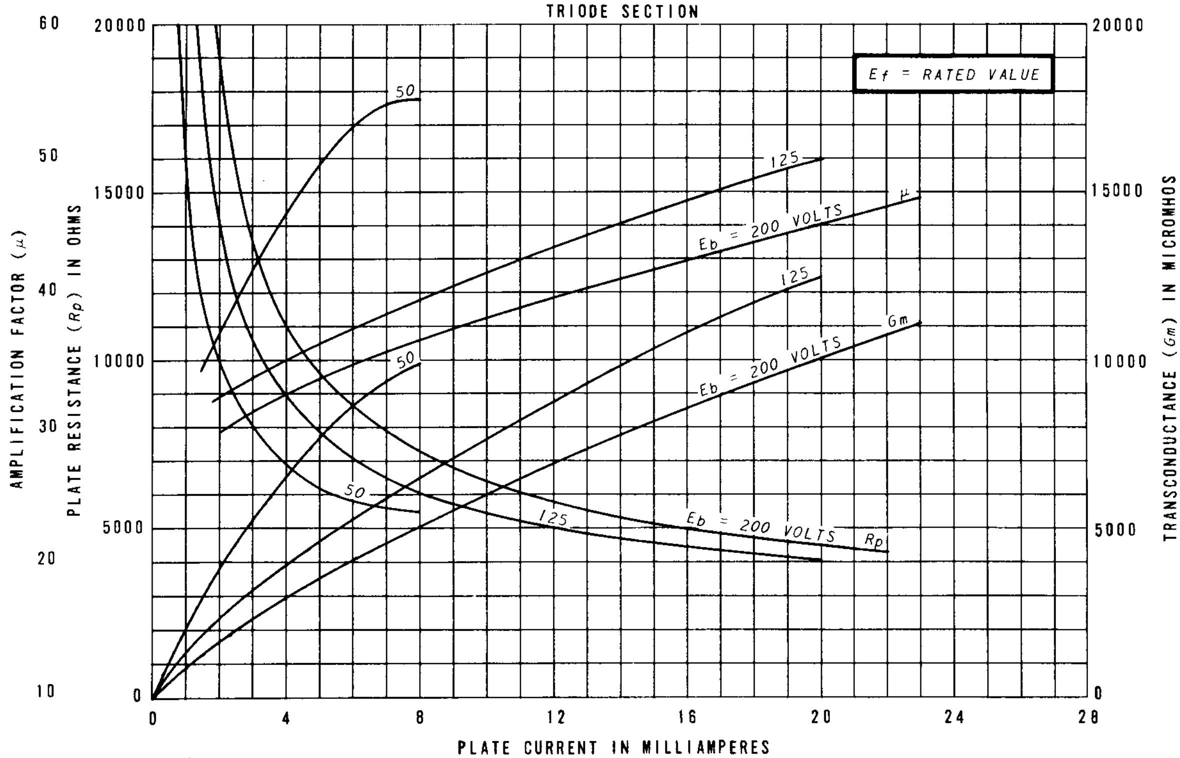
TRIODE SECTION



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AVERAGE CHARACTERISTICS



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